

## INTERNATIONAL SEARCH REPORT

PCT/IL 03/00341

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A63B23/02 A63B23/12 A63B21/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 309 331 B1 (RAYMOND JEAN-GUY) 30 October 2001 (2001-10-30) column 2, line 6 -column 4, line 54; figure 3 ---	1-3,8
X	US 6 387 024 B1 (BARNES NEAL ET AL) 14 May 2002 (2002-05-14) column 7, line 60 -column 9, line 10 column 11, line 1 - line 22; figures 1,8 ---	1,8
X	US 1 548 849 A (RUDEN HENRY M) 11 August 1925 (1925-08-11) page 1, line 22 - line 56; figures 3,4 ---	1,8
A	US 2 253 758 A (BULLOCH GEORGE C) 26 August 1941 (1941-08-26) the whole document --- -/--	1-4,8

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

2 September 2003

Date of mailing of the international search report

30/09/2003

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 421 800 A (MULLEN KARL I) 6 June 1995 (1995-06-06) column 2, line 51 -column 6, line 49; figures ---	1,6-8
A	US 2 494 094 A (HORSTMAN WALTER G) 10 January 1950 (1950-01-10) column 1, line 6 - line 35; figures -----	1

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6309331	B1	30-10-2001	US 2002019300 A1	14-02-2002
US 6387024	B1	14-05-2002	US 2002151419 A1	17-10-2002
US 1548849	A	11-08-1925	NONE	
US 2253758	A	26-08-1941	NONE	
US 5421800	A	06-06-1995	US 4832334 A	23-05-1989
US 2494094	A	10-01-1950	NONE	